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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,173	09/24/2002	Michael J. Collins	1700.89C	4893

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EXAMINER

GAKH, YELENA G

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/065,173

Applicant(s)

COLLINS ET AL.

Examiner

Yelena G. Gakh, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-13 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 14, 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Amendment filed 11/21/05 is acknowledged. Claims 1-2 and 5-21 are pending in the application.

Double Patenting

2. Applicant is advised that should claim 14 be found allowable, claim 21 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-2, 5-12 and 15-20 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for quartz or glass fiber pads and a sheet material being a perfluorinated hydrocarbon polymer, does not reasonably provide enablement for other pads and sheet materials. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The specification does not provide any examples of pads that are “hydrophilic and lipophilic and substantially transparent to microwave radiation and are free of atoms that would interfere with or mask the proton NMR response of the protons in the fats and oils in the sample” and “sheet materials that are free of atoms that would interfere with or mask NMR response of the protons in the fats and oils in the sample” other than quartz or glass fiber pads and perfluorinated hydrocarbon polymeric sheets. It would have been an unnecessary

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burden for any routineer in the art to search for pads and sheet materials, which would meet the requirements of claim 1. The specification does not teach or provide any guidance for methods of searching such materials. It is not clear, if searching such materials requires for any routineer in the art obtaining NMR spectra of possible materials as well as testing them for hydrophilic and lipophilic properties. The examiner considers such recitation of the claims as imposing an unnecessary burden on any person of ordinary skill in the art for practicing the invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-2, 5-13 and 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear, what are “at least some fats and oils” recited in claim 1? Are petroleum products (which are organic) “at least some fats and oils” recited in the claim? Indefiniteness of the expression “an organic portions containing at least some fats and oils” renders claims 1-2, 5-9 and 13 unclear and indefinite. Since it is not clear, which fats and oils are meant in the claim, this renders the limitation for the materials of the pad and sheet recited in claims 1-2 and 5-9 unclear and indefinite, as organic fats and oils of different origins may have completely different NMR spectra; this makes it unclear and indefinite as to which pads and sheet materials are meant in the claims. This renders claims 1-2, 5 and 8-12 unclear and indefinite as to what the pad is made of, and this renders claims 1-2, 5-8 and 10-12 unclear and indefinite as to which type of the sheet material the claims recite.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. **Claims 1-2, 5, 8, 10-12, 15, 19 and 21** are rejected under 35 U.S.C. 102(b) as being anticipated by any sandwich made of bread, which does not contain dough conditioners (comprising lipids), and any food product comprising fat or oil (butter, meat, fish, etc.) and wrapped in any conventional polyvinyl chloride (PVC) plastic wrap, as evidenced by Roudaout et al. (J. Cereal Sci., 1998), Alanen et al. (Phys. Med. Biol., 1991) and Pourahmady (US 5,292,823).

Roudaout teaches NMR study of “mobility of lipids in low moisture bread”, which indicates that there is no interference between the NMR signals of fat (lipids) and all other bread ingredients. Therefore, the bread, which does not comprise such lipids, meets the requirements of the substrate of claims 1-2, 5, 8, 10-12, 15, 19 and 21.

Alanen teaches that the fat proton signals are at ~ 1 ppm (see page 954), while Pourahmady teaches that PVC signals are at lower fields than 3.5 ppm, and therefore do not interfere with the fat signals; it means that PVC wrap satisfied the limitation of claim 1 for the wrap.

Allowable Subject Matter

9. **Claim 13** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 11/21/05 have been fully considered but they are not persuasive.

Regarding rejections under 35 U.S.C. 112, first paragraph. It seems that the Applicants argue the rejection that was not imposed by the examiner. The examiner did not reject claims 1-2 and 5-12 as being non-enabled. Rather, the examiner rejected the claims regarding their scope. The examiner indicated that besides the materials disclosed in the specification for the pad and the wrapper the Applicants did not provide any guidance for searching other materials that would

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meet the requirements recited in the claims. Moreover, describing materials through the absence of overlap of NMR signals of protons, which may present or may not present in the material, with those for some indefinite fats or oils without even giving a specific NMR regions for these protons does not provide any routineer in the art with any teaching of how to search for such materials. The examiner does not agree with the Applicants that searching for such materials is a routine job, since there is a vast number of various fats and oils comprising protons with NMR signals all over the region (from 1 to 12 ppm). To search for materials, which do not have protons with overlapping NMR signals is not a routine task. The examiner maintains the rejection.

Regarding rejections under 35 U.S.C. 112, second paragraph. According to MPEP, section 2106, "claims must be interpreted "in view of the specification" without importing limitations from the specification into the claims unnecessarily (see E-Pass Techs., Inc. v. 3 Com Corp., 343 F.3d 1364,1369, 67 USPQ2d 1947, 1950 (Fed. Cir. 2003). "Organic portion" is not a definite expression, since all fats and oils are organic in a general chemical sense. "Organic portions" is not specifically defined in the specification as the foodstuff, and therefore this limitation is not incorporated in the claims; thus, the claims remain unclear and indefinite, as to what the "organic portion" might be. Regarding pad and wrapper materials defined in the claims through the absence of overlapping NMR signals of protons, which may be present or absent from the materials, the examiner considers such definition of materials unclear and indefinite for the reasons expressed in previous and present Office actions.

Regarding "evidence references", the Applicants extracted a very short excerpt from Roudaout completely misrepresenting his disclosure. The whole paragraph including the excerpt cited by the Applicants reads as follows: "the bread studied contains intrinsic lipids i.e. the flour lipids. Previous studies have been performed on flour lipid^{6,7}. Belton et al.⁶ have carried out pulsed ¹H-NMR measurements on dry gluten and defatted gluten. A fraction characterized with a T2* of 23 ms at 20 °C was attributed to the lipids. Thus, in the present case, the protons of the gluten lipids might be fitted in fraction 2. *However, since gluten represents only 12% of the bread and contains only 4 to 7 % lipids by weight (equivalent to 6-10% of the protons in gluten), these protons may only contribute to a small extent to the signal of fraction 2 of bread (the lipids protons represent approximately 6% of the total protons amount). Similarly, due to the very low*

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lipid content of the starch (less than 1% per weight), the intrinsic lipids of the starch are expected to represent a very limited pool of protons. Moreover, they are expected to have a very low mobility and to contribute to the signal amplitude of fraction 1 or even to relax within the dead time" (Examiner's cursive). Thus, Roudaout absolutely unambiguously indicates that the "intrinsic lipids" of bread originated from flour have negligible influence on NMR studies. Moreover, potato bread contains even less amount of lipids than wheat bread. Therefore, potato bread used for the sandwich is an excellent substrate meeting requirements of the claims. Contrary to the Applicants' remark, the examiner does not take different elements from different references to construe the Applicants' NMR sample. The claims are reading on a simple bread-and-butter sandwich wrapped into PVC wrapper. The evidence references are used exclusively for demonstrating that such sandwich meets all the requirements of the indicated claims. The examiner applied the references in a full compliance with MPEP § 2131.01, which cites that "a 35 U.S.C. 102 rejection over multiple references has been held to be proper when the extra references are cited to: ... (C) Show that a characteristic not disclosed in the reference is inherent". The examiner would like to emphasize once more that there were no references cited "in view" or "in combination" in 102 rejection over the sandwich.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yelena G. Gakh, Ph.D. whose telephone number is (571) 272-1257. The examiner can normally be reached on 9:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/5/06


YELENA GAKH
PRIMARY EXAMINER